Real Fires Through wall Gas Fireplace Installation Instructions

Standard Range Model

The Real Fires Through wall Model is designed for installation into Timber framed cavities. It is not suitable for existing masonry situations.

Ventilation
Ventilation to the room that houses the fire must meet the requirements of NZS 5261

Framing Details
Prior to installation, timber framing needs to be provided to suit the Through Wall Fire. **See installation drawing**

Position of Fire
The Through wall fire has glass on one side, the other side is open. It must be confirmed which way the fire is to be installed. The fire can not be reversed after installation. The open side has the higher heat output.

Hearth
The minimum hearth size is 300mm into the room and 150mm wider each side than the fire. (300mm x 1200mm)

Hearth – Open side
A non combustible hearth must be provided in front of the open side of the through wall fire unless the floor is non combustible.

Hearth – Glass side
A non combustible hearth must be provided on the glass side of the Through wall fire unless the floor is non combustible or the fire is raised a minimum of 300mm above floor level.

Height of fire from floor
It is important to confirm the height the fire is to be installed above the floor level. This is usually the hearth height. For example if the hearth is 100mm high then the fire needs to be 100mm high (**note**- some elevated installations specify the fire higher than the hearth)
Once the height is confirmed a platform needs to be built to support the firebox. The platform can be of timber construction. It needs to be sturdy and level.

Gas Supply
A suitable gas supply needs to be provided at the right hand side of the timber frame cavity. This is as looking at the cavity from the side which will be the open side of the fire. **See installation drawing.** The pipe sizing should be calculated to supply gas to suit the megajoule rating of the fire. See rating chart. The gas supply should be reduced down to 10mm copper pipe at the fireplace location and left with a coil of approx 1 metre to feed into the firebox.

Gas rate chart

Natural Gas 44 MJ/h L.P.G. 62 MJ/ h

Electrical supply
An electrical supply will be required for the fan and the optional electric On/Off if fitted. This should be by means of a wall switch provided by an electrician, located on the outside of the framing housing the firebox. Not inside the framing cavity.
See installation drawing

Gib fixing
The firebox has a channel around both sides for gib fixing.

Insulation Kit & Timber clearance

The through wall fire is complete with an insulation kit. The insulation kit allows the fire to be installed with minimal timber clearances: 10mm minimum from the sides of the firebox, 25mm minimum clearance from the top of the firebox. Timber clearance from the flue is also 25mm. There is no requirement for any additional fireproof materials within the fireplace cavity providing minimum clearances are allowed.

Recessed installation
Standard wall linings are not suitable for recessed installation. Please contact Real Fires for advice prior to installation

Flue requirements
The minimum flue height is 2.4 metres
The Through wall fire has two flue outlets. Two separate flues connect to the flue outlets which are then connected to a Y piece which is a transition to join the two flues into one larger flue. One flue is then continued through to termination with a cowl outside.
The Flue cowl should be no lower than 900mm vertically from the roof line,
and a 2 metre horizontal clearance from any part of the building.
see cowl clearance drawings.

Flue and cowl size

Two Flues from firebox	2 x 150mm diameter Stainless inner steel flue 2 x 200mm diameter Galvanised outer flue
Y piece	2 x 150/200mm spigot converting to 1 x 200/ 250mm spigot
Single flue	200mm diameter Stainless steel inner flue 250mm diameter Galvanised outer flue
Cowl	200/250mm

Installation instructions
Firstly the firebox and flue are installed and then the burner is installed. The burner may be installed at a later date when all the construction work is complete and the hearth is in place.

The firebox is placed on the platform provided and the 10mm gas pipe is pushed through the hole in the firebox. The pipe is to be connected to the burner but may be left sealed if the burner is to be installed later. Leave enough pipe to connect the burner.

When placing the firebox in the timber cavity it is important to ensure it is centred correctly**. Centre the firebox from the front flange on the firebox. Not from the insulation kit inside the cavity**

Once the firebox is in place ensure it is level and positioned correctly. From the positioned fire the flue can be assembled. The flue is in 1200mm lengths with both inner and outer flue. Each flue length has a crimped end to join tightly to the next length. Each joint must be securely fixed by at least three stainless steel rivets.
The firebox has two spigots for the two 1200mm x 150/200mm lengths flues to locate over. The Y piece is then connected, joining the two flues into one.
From the Y piece a single 200/ 250mm flue is used to the termination of the flue.
The flue lengths should be installed with the crimped end facing up.

The Firebox and the flue should be secured by fixing with seismic strapping and/or brackets to framing.
Flue bends are available from Real Fires if the flue needs to be offset.
Appropriate weatherproof roof flashing/ chimney capping must be used to comply with NZS 5261

Once the installation of the firebox and flue is complete, the building work around the fireplace can continue. Ensure any timber fitted around the flue and top of firebox has a minimum clearance of 25mm.

Looking at the fire from the open side there will be an electrical lead for the fan from the left hand side of the firebox. This is intended to be connected by an electrician to a wall switch facing the room **See installation drawing**
The firebox is also pre wired for and optional electric On/Off. This is the lead from the right hand side of the firebox. If this option is used then this will also require wiring to a wall switch.

(Please ensure the electrical leads are not left behind the firebox and overlooked . It is difficult to gain access once the giboard is fixed)

Timber surrounds
If a timber surround is to be fitted, ensure it complies with Real Fires minimum clearance dimensions. **See installation drawing**

Installation of Real Fires burner into firebox
The burner is supplied boxed complete with firebox reflectors, grates, ash covers, vermiculite, logs & coals.

To make the gas connection, place the burner in the firebox so that it is positioned central. The gas pipe should be bent into position and marked for cutting.
Remove the burner, cut the pipe and make a flare connection.

Clean the glass panel as required to ensure there are no marks on the inside

Remove protective covering from the stainless steel reflectors, carefully fit the reflectors to each side of the firebox.
Carefully re-position the burner.
Place the ash cover **without the handle** in position beneath the burner on the glass side
Connect the gas supply and test for soundness.
Fit the grate on the glass side of the burner.
Fit the grate to the open side of the burner.

Natural Gas Burner

Fill the burner tray with the vermiculite supplied ensuring the burner tube is completely covered.

Place the large logs across each other in the centre of the burner and the twigs and coals around them to cover the burner with open spacings to allow the radiant heat escape. **See drawing of log & coal layout**

Do not place logs or coals close to the pilot.

L.P.G. Burner

The L. P.G. burner is a flat steel burner. This burner is supplied with a bag of coarse grain vermiculite, spread this thinly (5 to 10mm) over the surface of the burner.

Follow instructions for Log and Coal placement as with Natural Gas burner.

Optional Electric On/Off option

If the burner is fitted with an electric on/off solenoid, there will be an electrical flex with a connector plug in the base of the firebox. The plug connects to the solenoid on the burner. The electrical flex should be connected to a wall switch by an electrician. The burner will not operate without the solenoid on.

Commissioning of the burner

Ensure all protective covering is removed from all stainless steel panels before subjecting to heat.

Turn the control knob to ignite the pilot, this may take several attempts until air has been purged. Once the pilot is alight, keep the control knob depressed for about 20 seconds. Then release and turn on the burner. Check that the flame travels easily across the burner and that Log & Coal placement does not affect ignition. Re- position if required.

Burner Gas Pressure

Check the burner from the test point. This is located on the burner supply pipework on the Natural gas model and on the burner injector elbow on L.P.G. models.

See appliance data badge for pressure settings

Adjust the pressure at the regulator if required.

Check the fire is operating correctly and test for spillage of combustion products.

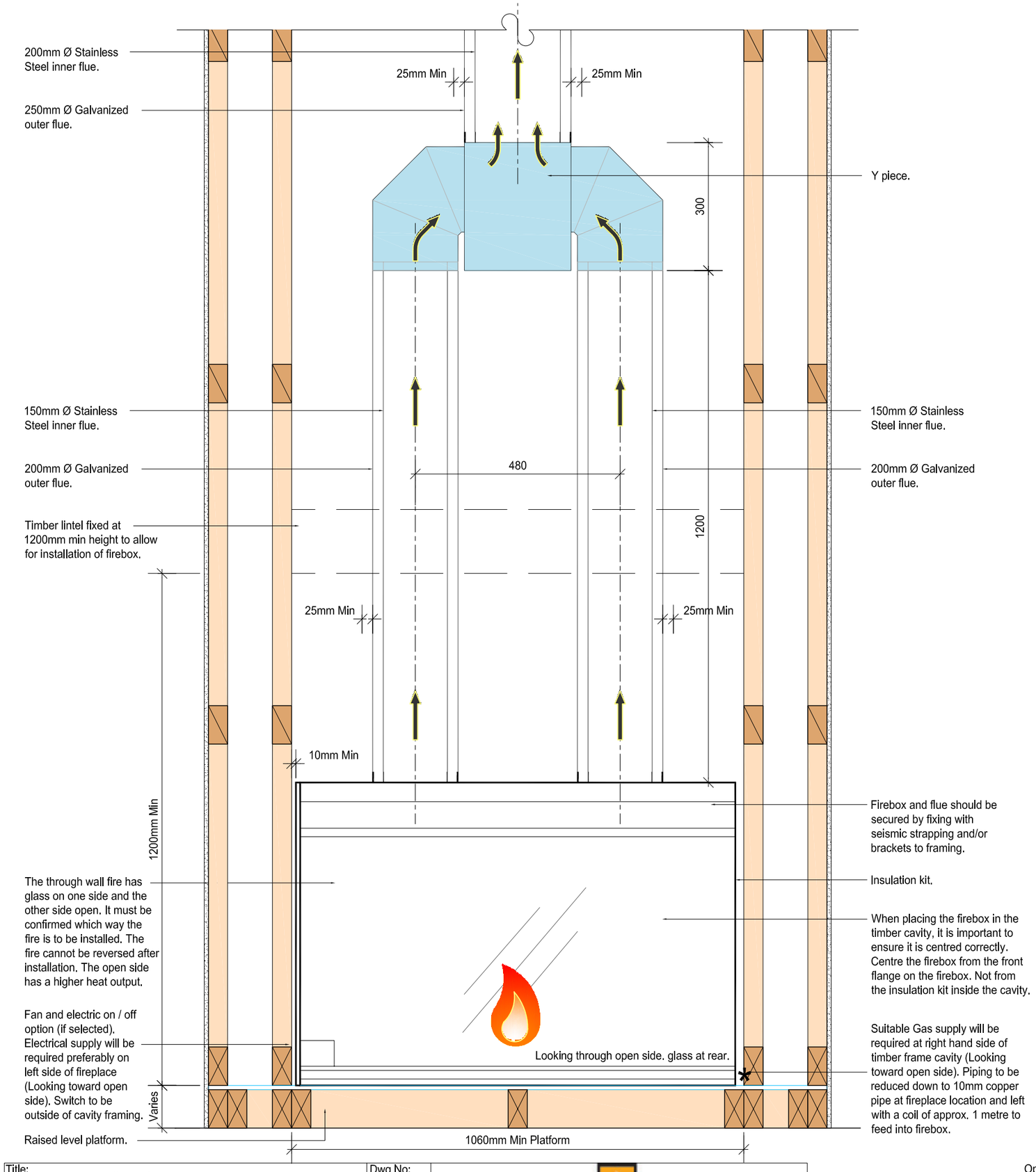
Fitting Trim to Firebox
Fit the Stainless Steel or Black trims to the firebox. The trim brackets are designed to hang over the flange on each side of the firebox. Each flange has provision to be moved slightly in or out to allow the bracket to fit. The flanges have a raised square near the base of the fire. The Velcro pad is fixed to this by removing the backing from one side of the pad and pushing firmly in place. Then remove backing from the other side. Repeat on opposite side. Hang trim on brackets and check for level then firmly push onto Velcro pads.

Optional four sided Trims
Four sided trims are available as an optional extra with the through wall fire.
This is for use when one or both sides of the fire has a hearth lower than the base of the fire. The method of fixing is the same as the standard trim.

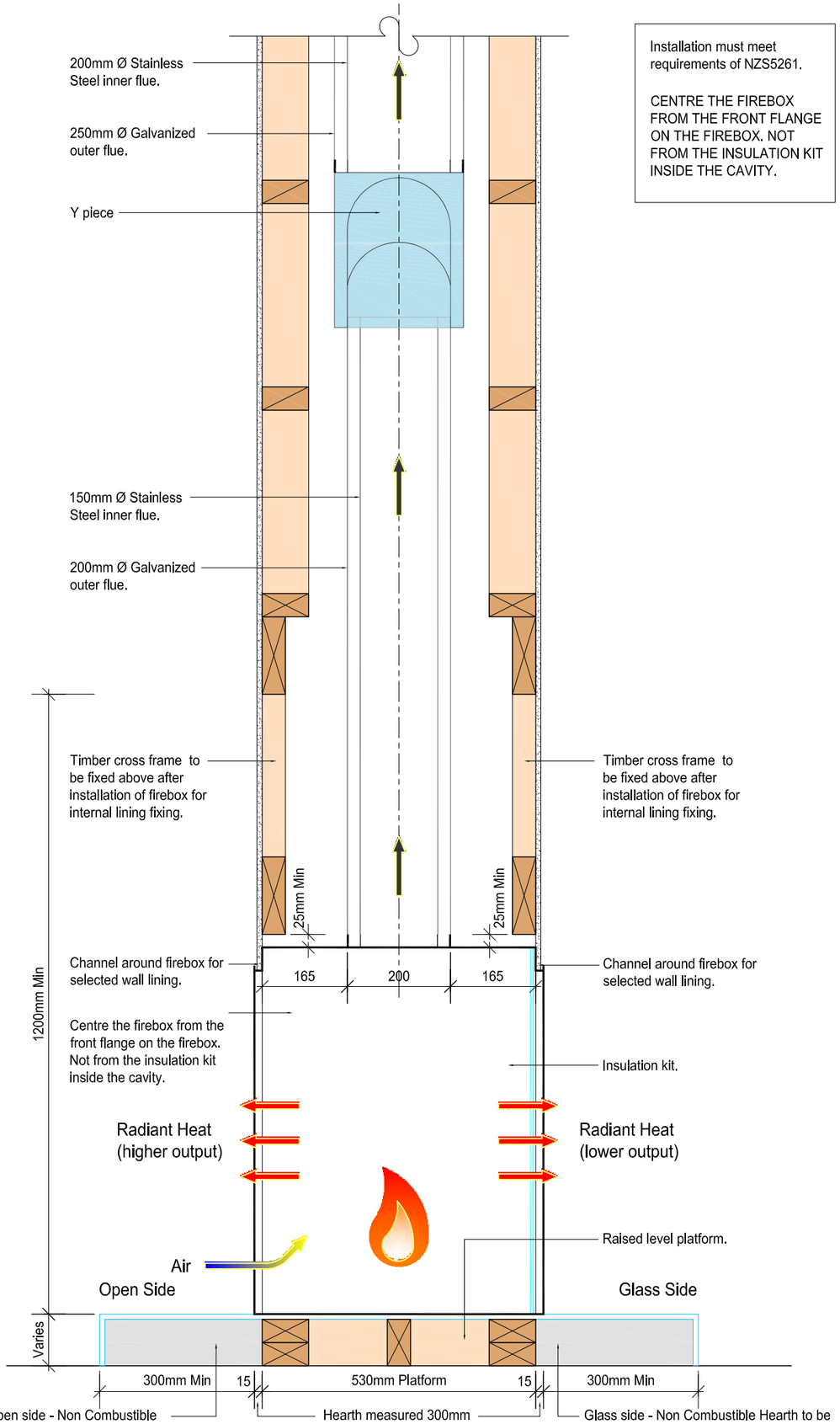
Optional glass panel for inside/ outside installations.
The through wall fire can be installed through an outside wall with the glass on the outside. In these situations a second glass panel must be ordered and fitted over the existing glass panel at the time of installation.
Please note Real Fires do not supply any weatherproof flashings for the through wall fire.

Once the installation is complete, instruct the user on the operation of the fire and complete commissioning details in Real Fires user manual.

All installations must be certified


200mm Ø Stainless Steel inner flue.
250mm Ø Galvanized outer flue.
25mm Min
25mm Min
Y piece.
300
150mm Ø Stainless Steel inner flue.
200mm Ø Galvanized outer flue.
480
Timber lintel fixed at 1200mm min height to allow for installation of firebox.
150mm Ø Stainless Steel inner flue.
200mm Ø Galvanized outer flue.
1200
25mm Min
25mm Min
10mm Min
1200mm Min
Firebox and flue should be secured by fixing with seismic strapping and/or brackets to framing.
Insulation kit.
When placing the firebox in the timber cavity, It is important to ensure it is centred correctly. Centre the firebox from the front flange on the firebox. Not from the insulation kit inside the cavity.
The through wall fire has glass on one side and the other side open. It must be confirmed which way the fire is to be installed. The fire cannot be reversed after installation. The open side has a higher heat output.
Looking through open side. glass at rear.
Fan and electric on / off option (if selected). Electrical supply will be required preferably on left side of fireplace (Looking toward open side). Switch to be outside of cavity framing.
Suitable Gas supply will be required at right hand side of timber frame cavity (Looking toward open side). Piping to be reduced down to 10mm copper pipe at fireplace location and left with a coil of approx. 1 metre to feed into firebox.
Varies
Raised level platform.
1060mm Min Platform

Title: Through wall sections				Dwg No:	REAL FIRES
Scale: 1:10 @ A3	Date: 01.05.06	Drawn: ARCAD	Rev: -		


200mm Ø Stainless Steel inner flue.
250mm Ø Galvanized outer flue.
Y piece
150mm Ø Stainless Steel inner flue.
200mm Ø Galvanized outer flue.
Timber cross frame to be fixed above after installation of firebox for internal lining fixing.
Timber cross frame to be fixed above after installation of firebox for internal lining fixing.
25mm Min
25mm Min
1200mm Min
Channel around firebox for selected wall lining.
165
200
165
Channel around firebox for selected wall lining.
Centre the firebox from the front flange on the firebox. Not from the insulation kit inside the cavity.
Insulation kit.
Radiant Heat (higher output)
Radiant Heat (lower output)
Air
Raised level platform.
Open Side
Glass Side
Varies
300mm Min
15
530mm Platform
15
300mm Min
Open side - Non Combustible Hearth to be provided. Height of hearth may vary, but in all cases ensure firebox to remain at the same level of hearth or above.
Hearth measured 300mm from face of firebox. Allow additional depth of hearth to rear of selected wall linings.
Glass side - Non Combustible Hearth to be provided unless firebox is raised 300mm above floor level. Height of hearth may vary, but in all cases ensure firebox to remain at the same level of hearth or above.

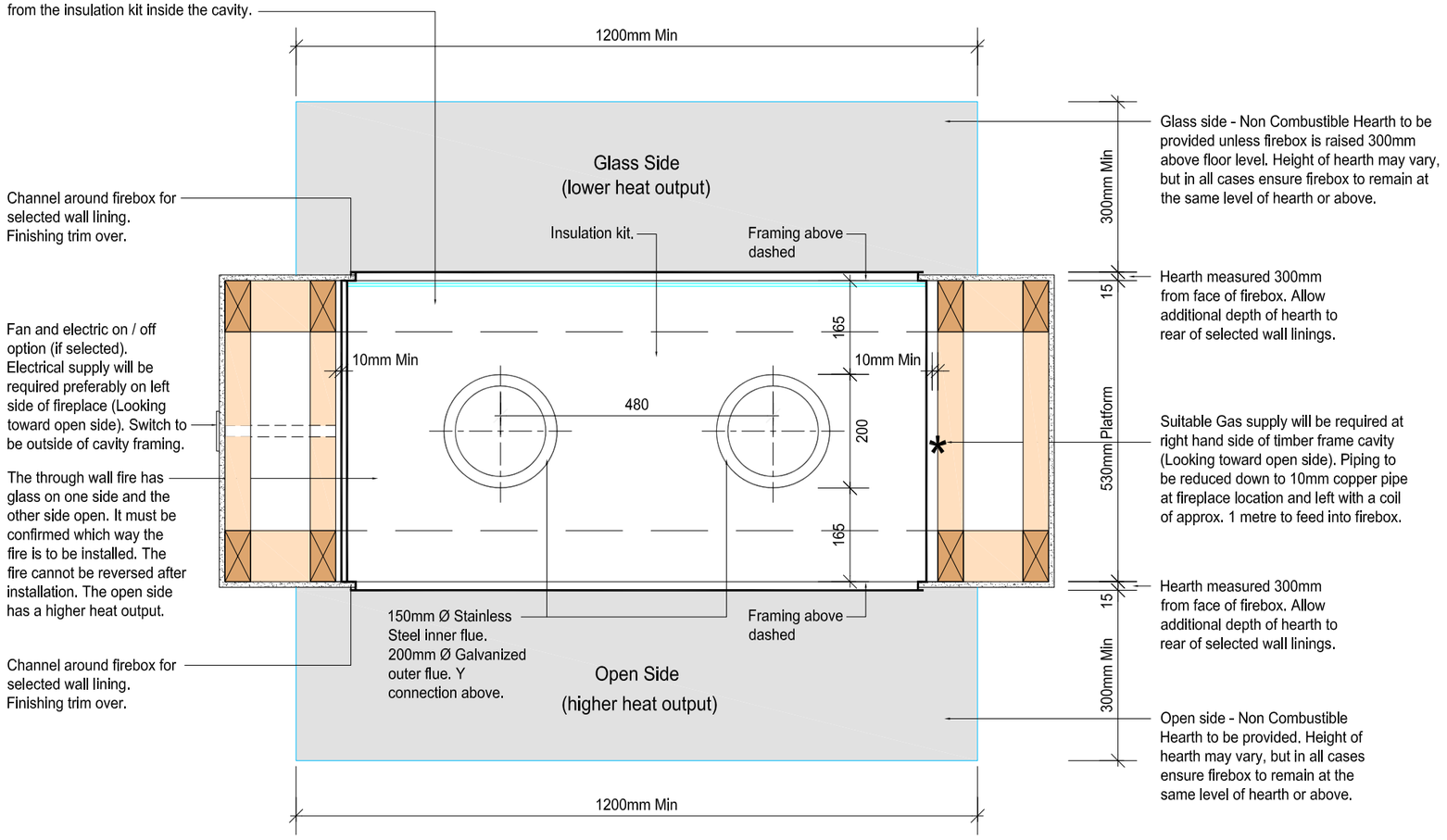
Installation must meet requirements of NZS5261.

CENTRE THE FIREBOX FROM THE FRONT FLANGE ON THE FIREBOX. NOT FROM THE INSULATION KIT INSIDE THE CAVITY.

Installation must meet requirements of NZS5261.

CENTRE THE FIREBOX FROM THE FRONT FLANGE ON THE FIREBOX. NOT FROM THE INSULATION KIT INSIDE THE CAVITY.

When placing the firebox in the timber cavity, it is important to ensure it is centred correctly. Centre the firebox from the front flange on the firebox. Not from the insulation kit inside the cavity.



Channel around firebox for selected wall lining. Finishing trim over.

Fan and electric on / off option (if selected). Electrical supply will be required preferably on left side of fireplace (Looking toward open side). Switch to be outside of cavity framing.

The through wall fire has glass on one side and the other side open. It must be confirmed which way the fire is to be installed. The fire cannot be reversed after installation. The open side has a higher heat output.

Channel around firebox for selected wall lining. Finishing trim over.

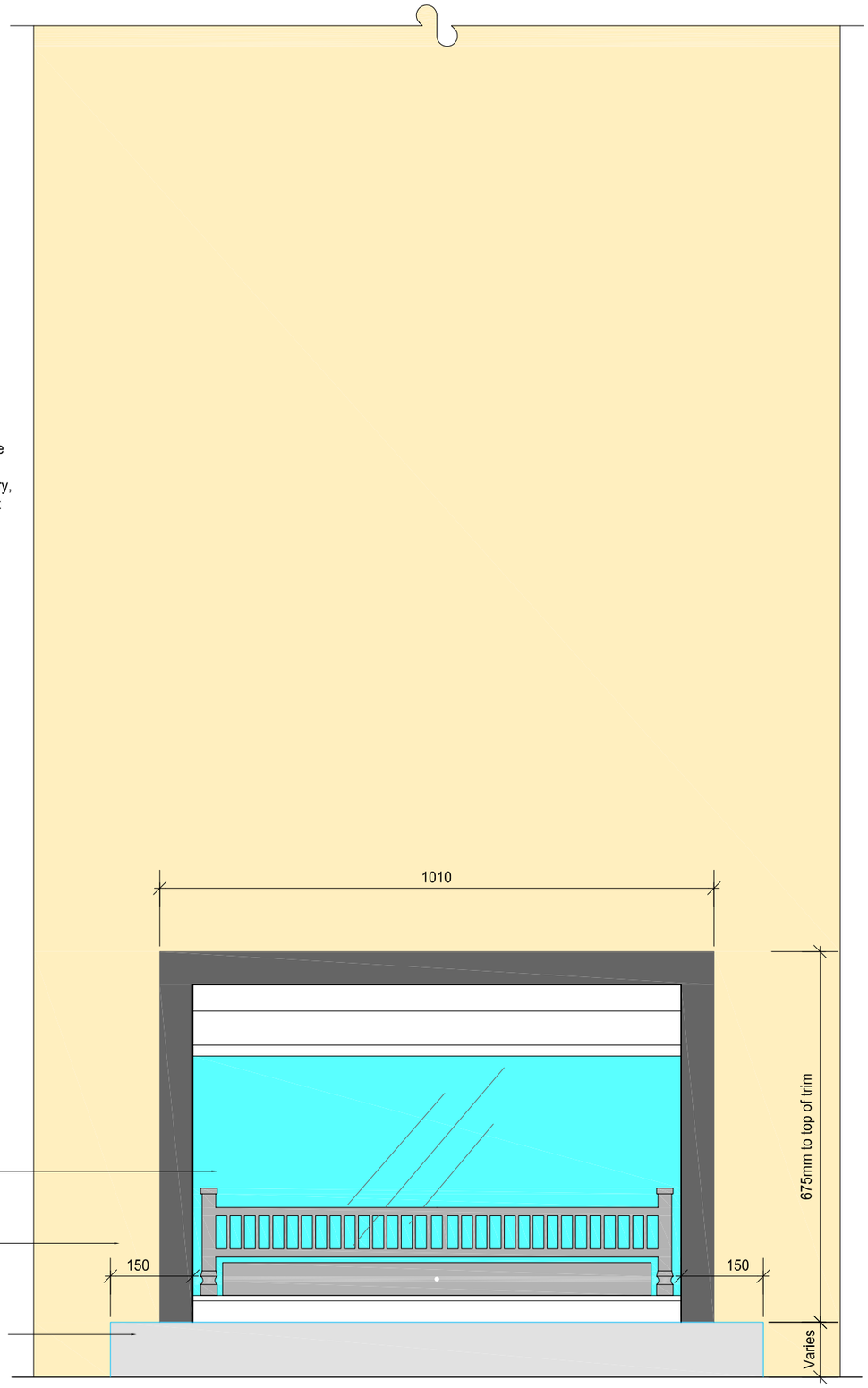
Glass side - Non Combustible Hearth to be provided unless firebox is raised 300mm above floor level. Height of hearth may vary, but in all cases ensure firebox to remain at the same level of hearth or above.

Hearth measured 300mm from face of firebox. Allow additional depth of hearth to rear of selected wall linings.

Suitable Gas supply will be required at right hand side of timber frame cavity (Looking toward open side). Piping to be reduced down to 10mm copper pipe at fireplace location and left with a coil of approx. 1 metre to feed into firebox.

Hearth measured 300mm from face of firebox. Allow additional depth of hearth to rear of selected wall linings.

Open side - Non Combustible Hearth to be provided. Height of hearth may vary, but in all cases ensure firebox to remain at the same level of hearth or above.

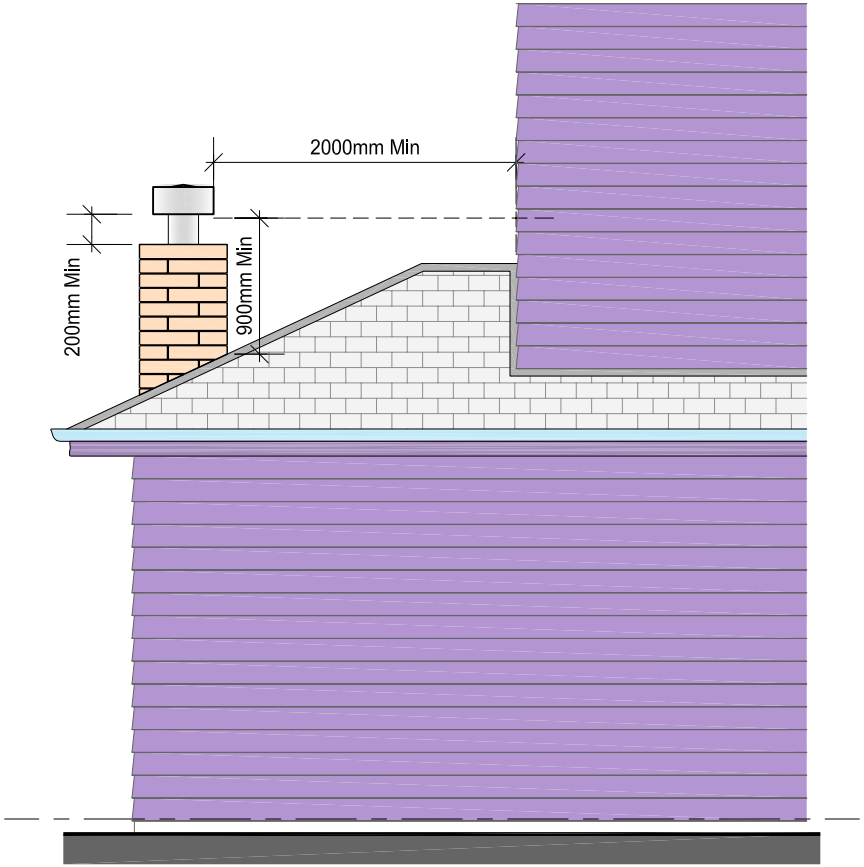


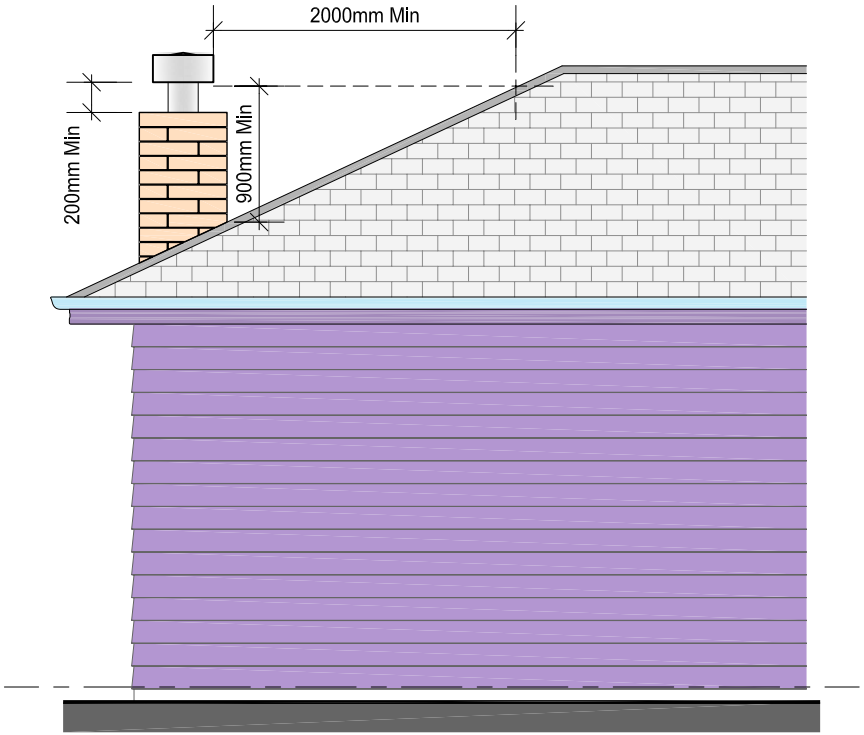
Glass panel at the back

Finishing Trim.

Non Combustible Hearth to be provided. Height of hearth may vary, but in all cases ensure firebox to remain at the same level of hearth or above.

Title: Through wall plan & elevation				Dwg No:	REAL FIRES
Scale: 1:10 @ A3	Date: 01.05.06	Drawn: ARCAD	Rev: -		





NOTE: The Real Fire gas fireplace flue is required to be 900mm minimum above the roof line and the cowl requires a clearance of 2000mm minimum to all sides.

Title: Real Fires Flue Termination Requirements				Dwg No:	REAL FIRES
Scale: N.T.S	Date: 01.05.06	Drawn: ARCAD	Rev: -		

Real Fires Log and Coal Layout

This drawing is a typical example of the log and coal layout on a Real Fire 800
The layout is basically the same for all models with logs and coals decreased or increased in width to suit the size of fire. (The pilot ignition assembly has been omitted from the drawing).

It is important to ensure that the logs and coals are not too tightly placed as this will affect heat output. Do not place Logs and Coals close to the pilot and ensure that the burner lights easily and flame travels easily across the burner. Reposition if required.